

July 2015

Reno County

Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors

A total of 26 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Reno County economy.¹ These 26 sectors have a total direct output of approximately \$1324 million and support 3,364.5 jobs in Reno County. Running the model for all 26 sectors simultaneously produces the following results:

Agriculture Contribution in Reno County

Impact Type ²	Employment	% of Total Employment	Total Value Added ³	% of Gross Regional Product ⁴	Output ⁵	% of Gross Regional Product
Direct Effect	3,364.5	9%	\$264,564,437	12%	\$1,323,941,283	61%
Indirect Effect	1,712.3	5%	\$120,580,409	6%	\$225,875,555	10%
Induced Effect	1,103.1	3%	\$68,872,564	3%	\$119,422,432	6%
Total Effect	6,179.8	17%	\$454,017,410	21%	\$1,669,239,269	77%

As shown in the above table, agriculture, food, and food processing supports 6,179.8 jobs, or 17% of the entire workforce in the county. These industries provide a total economic contribution of approximately \$1669 million, roughly 77% of Gross Region Product (GRP). As noted below in the calculation of Gross Regional Product, imports and institutional sales are subtracted. Therefore, counties that import a relatively large amount of goods and services will have a reduced GRP which may lead to agricultural output being greater than GRP.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 26 agriculture, food, and food processing sectors is approximately \$454 million, or 21% of the GRP. This indicates that personal income, business income, and taxes generated by these sectors account for 21% of the total economy.

The following tables document the overall summary numbers of the model, top industries affected by employment and output, and a listing of all industries that were analyzed.

¹ Article on building a contribution analysis in IMPLAN that avoids double counting:
https://implan.com/index.php?option=com_content&view=category&id=19

² Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

³ Value Added = Labor Income + Indirect Business Taxes + Other Property Type Income

⁴ GRP = Final Demand of Households + Governments Expenditures + Capital + Exports - Imports - Institutional Sales

⁵ Output = Intermediate Inputs + Value Added

In the top ten by employment, Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming is the top employer in the agriculture industry with 610.4 employees. This table also shows the amount of jobs that are created by the agriculture industry in Reno County.

Top 10 Industries Affected by Employment

Sector Description:	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	610.4	\$114,416,568
Farm machinery and equipment manufacturing	513.5	\$316,671,272
Meat processed from carcasses	509.6	\$235,950,818
Grain farming	414.1	\$104,887,311
Wholesale trade.....	305.0	\$62,403,291
All other crop farming.....	291.4	\$26,752,702
Support activities for agriculture and forestry	200.8	\$6,384,775
Paperboard mills.....	180.4	\$123,253,848
Truck transportation.....	152.9	\$21,841,467
Fluid milk manufacturing.....	148.0	\$113,957,683

The Farm machinery and equipment manufacturing industry directly contributes approximately \$317 million to Reno County's economy. This table also shows how much revenue is generated in other industries by having a strong agriculture industry.

Top 10 Industries Affected by Output

Sector Description:	Total Employment	Total Output
Farm machinery and equipment manufacturing.....	513.5	\$316,671,272
Meat processed from carcasses	509.6	\$235,950,818
Flour milling.....	94.8	\$145,929,519
Paperboard mills.....	180.4	\$123,253,848
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	610.4	\$114,416,568
Fluid milk manufacturing.....	148.0	\$113,957,683
Grain farming	414.1	\$104,887,311
Wholesale trade.....	305.0	\$62,403,291
Oilseed farming.....	28.9	\$45,259,087
All other crop farming.....	291.4	\$26,752,702

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture sector and the output they contributed to Reno County's economy.

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All 105 counties in Kansas have IMPLAN models with an agriculture contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Kansas, the retail sector was omitted.